

REMARKS

Claims 1, 2, 4-14 and 16-22 are pending in this application. By this Amendment, claims 1 and 6-10 are amended. Various amendments are made for clarity and are unrelated to issues of patentability.

Applicant gratefully acknowledges the Office Action's indication that claims 14 and 16-22 are allowed. Claims 1-8 and 10-12 have not been rejected based on prior art. Additionally, as will be described below, all claims are believed to be allowable.

The Office Action rejects claims 1, 2, 4-8 and 10-12 under 35 U.S.C. §112, second paragraph. It is respectfully submitted that the above amendments obviate the grounds for rejection. Withdrawal of the rejection is respectfully requested.

The Office Action rejects claims 9 and 13 under 35 U.S.C. §103(a) over newly-cited U.S. Patent 6,018,546 to Rege in view of U.S. Patent Publication 2003/0142726 to Eltavil et al. (hereafter Eltavil). The rejection is respectfully traversed with respect to the pending claims.

Independent claim 9 recites a plurality of fingers, and an index detector for detecting a Walsh index indicating a maximum Walsh code based on energy values of Walsh code correlation values of signals received via multi-paths. Independent claim 9 also recites that each of the energy values are provided by each of the plurality of fingers, and the plurality of fingers are capable of receiving the Walsh index generated from the index detector and are capable of compensating the signals received via the multi-paths, respectively.

The applied references do not teach or suggest at least these features of independent

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claim 9. More specifically, the Office Action cites Rege's col. 1, lines 21-35 and col. 6, lines 14-19 as disclosing a plurality of fingers for receiving the Walsh index generated from the index detector and compensating the signals received via the multi-paths, respectively.

Rege discloses that 64 output signals may be generated from output signals of the corresponding Walsh correlators in each finger, and the 64 output signals are applied to a soft decision metric generator 220. See Rege's FIG. 2 and col. 1, lines 12-35 and col. 6, lines 14-19. Rege also discloses that the soft decision metric generator 220 determines an L highest energy correlator output signals and records their indices and energy levels to provide a sequence of soft decision metrics D_k . See Rege's col. 4, lines 16-26. The sequence of decision metric D_k are applied to a deinterleaver 225 (FIG. 2) that provides a deinterleaved sequence to a Viterbi decoder. See Rege's col. 4, lines 9-12. Rege does not disclose any further relationship between the soft decision metric generator 220 and each finger.

Independent claim 9 recites an index detector for detecting a Walsh index indicating a maximum Walsh code based on energy values, wherein each of the energy values are provided by each of the plurality of fingers, and the plurality of fingers are capable of receiving the Walsh index generated from the index detector (and are capable of compensating the signals received via the multi-paths), respectively.

In contrast, Rege provides two or more highest energy correlator output signals and indices of the L highest energy correlator output signals are not provided back into each finger, see Rege's col. 1, lines 53-57, col. 2, lines 33-37, and col. 4, lines 22-26. Therefore, Rege does not

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teach or suggest the claimed index detector and the plurality of fingers are capable of receiving the Walsh index generated from the index generator. Eltavil does not teach or suggest the features of independent claim 9 missing from Rege. Independent claim 9 therefore defines patentable subject matter.

Independent claim 13 recites a plurality of fingers for despreading received signals and outputting first outputs corresponding to Walsh code energy values calculated by using a correlation value of each walsh code and the despread signals and second outputs by compensating the correlation value by performing phase estimation filtering for the correlation value according to a control signal. Independent claim 13 also recites a combiner for outputting the control signal indicating the walsh code having a maximum energy value of the first outputs to each fingers and a symbol for a walsh code set by combining the second outputs.

For at least similar reasons as set forth above, Rege and Eltavil do not teach or suggest all the features of independent claim 13. More specifically, Rege and Eltavil do not teach or suggest a plurality of fingers outputting first outputs corresponding to Walsh code energy values calculated by using a correlation value of each walsh code and the despread signals and second outputs by compensating the correlation value by performing phase estimation filtering for the correlation value according to a control signal Thus, independent claim 13 defines patentable subject matter.

The Office Action has not rejected independent claim 1 based on prior art. Rege and Eltavil do not teach or suggest the features of independent claim 1. As one example, the applied

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references do not teach or suggest that the means for generating the phase reference signal comprises means for calculating correlation values of orthogonal codes of the received signals via the multi-paths, respectively, and for calculating symbol energy values of the correlation values, and means for adding the symbol energy values of the correlation values per each orthogonal code for the entire multi-paths to determine the orthogonal code having a maximum energy value as the phase reference signal. Thus independent claim 1 defines patentable subject matter.

For at least the reasons set forth above, each of independent claims 1, 9, 13, 14 and 21 defines patentable subject matter. Each of the dependent claims depends from one of the independent claims and therefore defines patentable subject matter at least for this reason. In addition, the dependent claims recite features that further and independently distinguish over the applied references.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of claims 1, 2, 4-14 and 16-22 are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this,

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concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and
please credit any excess fees to such deposit account.

Respectfully submitted,
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